ABSTRACT

The present invention provides a film-forming composition comprising a particulate polymer or emulsified liquid pre-polymer, water and a coalescent aid comprising an ester having the formula RCOOX wherein R and X are independently hydrocarbyl or substituted hydrocarbyl, and at least one of R and X contain at least two unsaturated carbon-carbon bonds. The coalescent aid helps lower the minimum film formation temperature of low glass transition temperature coatings and high glass transition temperature coatings and allows optimum film formation at ambient temperatures. The coalescent aid of this coating composition is not volatile like conventional coalescent aids but rather remains part of the film and air oxidizes to cure the film. This coating composition also exhibits properties of adhesion and gloss superior to that of coating compositions containing conventional coalescent aids. Additionally, this coalescent aid can be made from natural or synthetic oils.